[0190] **801** Biological signal acquisition unit
[0191] **802** Evaluation data distribution unit
[0192] **804** Biological information detection unit
[0193] **805** Intentional motion detection unit

1. An input device comprising:
a sensor signal acquisition unit configured to acquire a sensor signal;
a waveform comparison unit configured to compare waveforms during two or more periods of the sensor signal; and
a mode setting unit configured to, on the basis of a result of comparison by the waveform comparison unit, set a mode of a control target device to be controlled.

2. The input device according to claim **1**, wherein the sensor signal is a signal sampled by a sensor that is configured to be attached to a living body.

3. The input device according to claim **1**, wherein the sensor signal is a signal sampled by an infrared sensor.

4. The input device according to claim **1**, wherein the two or more periods are adjacent two periods having no interval.

5. The input device according to claim **1**, wherein the mode setting unit sets the mode of the control target device when waveforms during the two or more periods are substantially identical.

6. The input device according to claim **5**, wherein the mode setting unit sets the mode of the control target device in accordance with a time length of the waveforms that are substantially identical.

7. The input device according to claim **1**, further comprising a sequential evaluation data storage unit configured to store evaluation data that are the sensor signal or data obtained by processing the sensor signal using a predetermined processing method.

8. The input device according to claim **7**, wherein the waveform comparison unit performs comparison based on a difference among each combination of values of the evaluation data that correspond to one another in a chronological manner of the two or more periods or a value obtained by processing the difference using a predetermined processing method.

9. The input device according to claim **7**, wherein
the waveform comparison unit further comprises a sequential state information storage unit,
the sequential state information storage unit is configured to store sequential parameter sets of a sign information, a number information and an area information, and
each of the parameter sets is corresponding to a sub-period during which the evaluation data having the same sign appear consecutively, and
the sign information is the same sign of the sub-period, and
the number information is the number of the evaluation data in the sub-period, and
the area information is the total sum of values or absolute values of the evaluation data in the sub-period, and
the waveform comparison unit is configured to perform comparison based on the sequential parameter sets of two adjacent periods.

10. The input device according to claim **9**, wherein the sign information includes any of three patterns of signs including a positive sign, a negative sign, and 0, by setting a predefined threshold value or a threshold value that is automatically adjusted in accordance with a magnitude of an input signal and, when an absolute value of an evaluation data is lower than the threshold value, replacing the evaluation data with 0.

11. The input device according to claim **5**, wherein
the control target device further comprises a music playback unit, and
the mode setting unit converts a time length of the waveforms that have been determined to be substantially identical into a tempo and, when the tempo and a tempo of a piece of music being played back by the music playback unit have a correlation, discards the determination that the waveforms are substantially identical.

12. The input device according to claim **1**, wherein
the two or more periods for which comparison is performed are not adjacent to each other on a time axis, and
the input device is used in conditions in which apiece of music is played back during each of the two or more periods.

13. A biosensor that is attached to a living body and acquires biological information from the living body, comprising:
a sensor signal acquisition unit configured to acquire a sampled sensor signal;
a waveform comparison unit configured to compare waveforms during two or more periods of the sensor signal; and
a mode setting unit configured to, on the basis of a result of comparison by the waveform comparison unit, set a mode of a control target device to be controlled.

14. The biosensor according to claim **13**, wherein the target biological information of the biosensor is any information chosen from a heartbeat, pulse wave, blood pressure, a blood oxygen level, body temperature, respiration, skin electrical resistance, brain waves, blinks, and the number of steps.

15. A biosensor according to claim **13**, wherein a waveform generated by a change in a positional relation or a change in a contact state between the living body and the sensor signal acquisition unit is distinguished from a waveform derived from the biological information in the waveform comparison unit.

16. A biosensor according to claim **15**, wherein the waveform comparison unit distinguishes the waveform generated by a change in a positional relation or a change in a contact state from the waveform derived from the biological information depending on a difference between the magnitudes of amplitudes of the waveforms.

17. A biosensor according to claim **13**, wherein, when waveforms during the two or more periods are substantially identical, the mode setting unit sets a mode of the control target device.

18. The biosensor according to claim **13**, further comprising an acceleration sensor or an angular velocity sensor that is attached to the same living body as the living body which the biosensor is attached to,
wherein, when waveforms from the acceleration sensor or the angular velocity sensor during two or more periods are determined to be substantially identical at substantially the same timing and with substantially the same time length as two or more periods for which waveforms from the bio sensor are determined to be sub-